

# Murfreesboro Fire Department 2005 Annual Report



*Murfreesboro "Creating a Better Quality of Life"*

## Table of Contents

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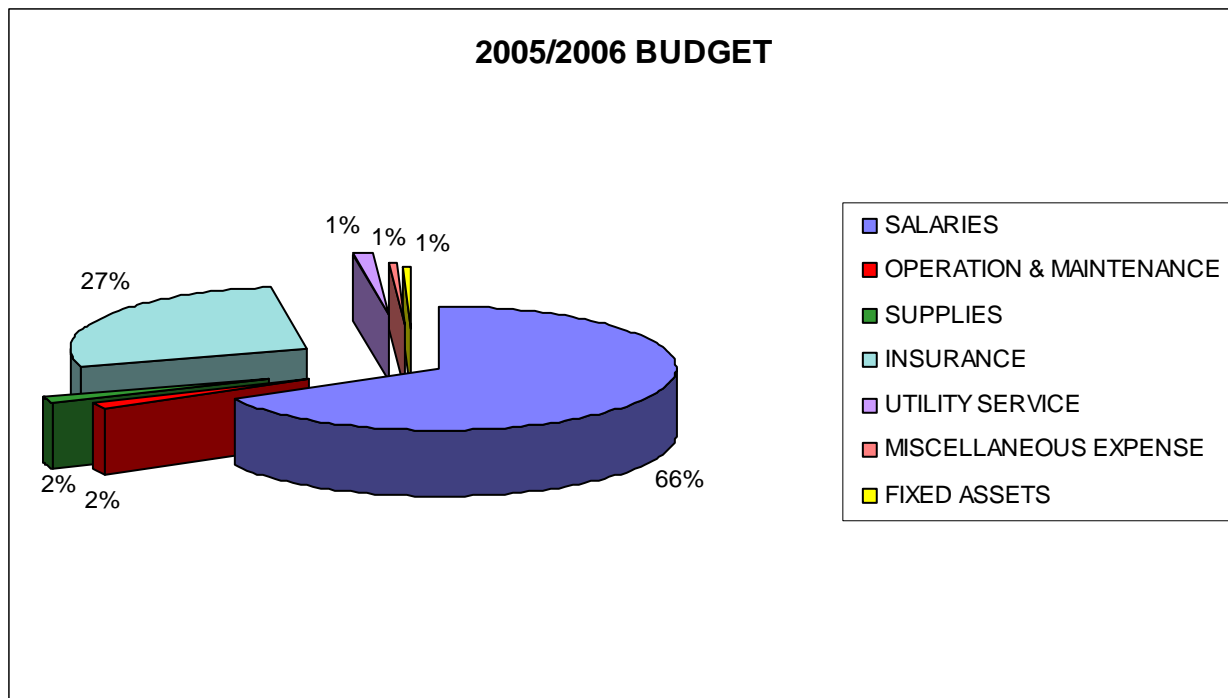
Budget.....	1
2005 Accomplishments .....	2
Incident Responses.....	4
History of Incidents.....	5
Response Analysis.....	5
Types of Fires.....	6
Types of Fires by Year.....	6
Incidents by Time of Day .....	7
Incidents by Day of Week .....	7
Incidents by District .....	7
False Alarm Analysis .....	8
Five Year Analysis of False Alarms .....	8
Fire Prevention .....	9
Fire Safety Inspections.....	9
Fire Safety Education .....	11
Citizens Fire Academies.....	12
Firefighter Training .....	13
Training Hours by Year.....	16
Breakdown of Training Hours.....	16
State Firefighting Commission Certifications.....	17

## Budget

The Murfreesboro Fire Department's total budget for the fiscal year 2005-2006 is \$11,851,725.43. The increase in the budget from 2003/2004 is due to the departmentalization of insurance and utility service which was previously budgeted under the General and Administration Department. Budget figures do not include bond information.

DESCRIPTION	2003/2004 ACTUAL	2004/2005 ACTUAL	INCREASE/ DECREASE	2005/2006
SALARIES	6,734,348.62	\$7,532,891.60	\$354,795.83	\$7,887,687.43
OPERATION & MAINTENANCE	208,473.20	200,345.90	(1,400.90)	198,945.00
SUPPLIES	179,807.64	252,553.14	(5,303.14)	247,250.00
INSURANCE		2,784,352.06	444,565.94	3,228,918.00
UTILITIES		143,634.28	2,365.72	146,000.00
MISC. EXPENSE	87,501.24	* 212,856.49	(139,656.49)	73,200.00
FIXED ASSETS	50,819.15	109,783.55	(40,058.55)	69,725.00
<b>TOTAL BUDGET</b>	<b>7,260,949.85</b>	<b>11,236,417.02</b>	<b>\$615,308.41</b>	<b>11,851,725.43</b>

\*Grant funds of \$138,452.07 were included in the Miscellaneous Expense in the 2004/2005 budget.



## **2005 Accomplishments**

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### **ACHIEVEMENT AWARD**

The Murfreesboro Fire Department received Tennessee's Achievement Award for Excellence in Fire Safety from the Tennessee Municipal League. The award was received for a well-run, managed, organized, equipped and trained fire department.

### **NEW EQUIPMENT**

- Two 61' Pierce Skyboom Aerials/Engines
- One Pierce Rescue Truck
- Three 2006 Chevrolet Trucks
- Ten TNT Forcible Entry Tools
- Three Extrication Mini Cutters
- Miscellaneous Tools for Repair of Extrication Equipment
- Infrared Imaging System (Viper) Wireless Video Transmitter
- Six Sections of 4" Fire Hose
- Two Kussmaul Fire Engine Battery Chargers
- New Portable Radios, Mobile Radios, Batteries, and DC Chargers (Grant)
- Additional Radio Channel
- New Hydrant Software
- Replaced Administration's Copy Machine
- Replaced Six Fax Machines at Stations
- Replaced Lounge Chairs at All Stations

### **STATION PROJECTS**

- Headquarters - Replaced 7.5 Ton HVAC Unit; Added 2.5 Ton HVAC Unit; Remodeled Office; Replaced Overhead Bay Door Motors
- Station 2 - Replaced Washing Machine
- Station 3 - Remodeled Office
- Station 4 - Remodeled Office
- Station 6 - Built Firefighter Survival Building for Firefighter Safety Training; Created Storage Area for Equipment; Replaced Overhead Bay Door Motors; Tinted Bedroom Windows
- Station 7 - Replaced 5 Ton and 4 Ton HVAC Units; Replaced Roof (Shingle & Flat); Replaced Floor Tile and Bedroom Carpet; Replaced Ceiling Tile
- Station 8 - Replaced Floor Tile and Bedroom Carpet; Reattached Gutters and Replaced Woodwork; Replaced Overhead Bay Door Motor
- Station 9 - Replaced Two Doors with Egress Doors; Replaced Bases on Building Columns; Replaced Washing Machine; Added Lockers
- Administration - Replaced Carpet; Installed Ceramic Tile Floor; Replaced Door Awnings

## 2005 Accomplishments

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### **FUTURE PROJECTS AND EQUIPMENT**

- Exhaust Extraction Systems for Headquarters, Station 6 & Station 7 (Grant)
- Replacement of Fire Engine and Equipment
- Replace Roof at Headquarters and Station 8
- Radio Voter Receiver
- Firefighter Survival Training Class for All Shift Personnel

### **PUBLIC RELATIONS EVENTS**

- Annual Smoke Detector Program
- National Night Out
- MTSU Homecoming and Christmas Parades
- Toys for Tots Campaign
- Hosted Fire Safety Inspector's Conference (263 people attended)
- Hosted the Tennessee Advisory Committee on Arson Conference
- Leadership Rutherford Emergency Services Event

### **MISCELLANEOUS**

- New Red Honor Guard Uniforms
- MFD Honor Guard Presented Colors at Twelve (12) Events
- Firefighter of the Month Award
- New Fire Prevention Program, "Firefighter Frank"
- Promoted Six (6) Employees to Driver, Two (2) Employees to Captain
- Hired Ten (10) New Personnel to Replace Employees that Retired, Resigned, or Terminated



**MFD RECEIVES TML AWARD  
FOR EXCELLENCE  
IN FIRE SAFETY**



**HONOR GUARD PRESENTING  
COLORS AT THE STATE  
FIRE SCHOOL**

## Incident Responses

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The Murfreesboro Fire Department uses the Tennessee Fire Incident Reporting System (TFIRS) to report each emergency incident. TFIRS is a member of the National Incident Reporting System (NFIRS). Our incident response statistics are compiled with all other Fire Departments at the state and national level. These statistics can be utilized to focus on current problems and to predict future ones within the fire service.

The department's average response time was approximately three minutes and fifty-two seconds based on incidents dispatched as emergencies (10-33 traffic). The estimated fire loss for the City of Murfreesboro was \$1,904,467, and the total property value saved was \$6,508,756. The three most extensive fire losses were a commercial business fire on Memorial Boulevard at \$425,000, a house fire on Verde Court at \$144,712, and a house fire on Cason Trail at \$135,673.

The Fire Prevention Division investigated thirty-six (36) structure fires. Eleven (11) of the thirty-six (36) fires were ruled incendiary and three (3) were classified as suspicious. Six arrests were made in 2005. The other incendiary and suspicious fires are still being investigated. There were three fatal fires in 2005.

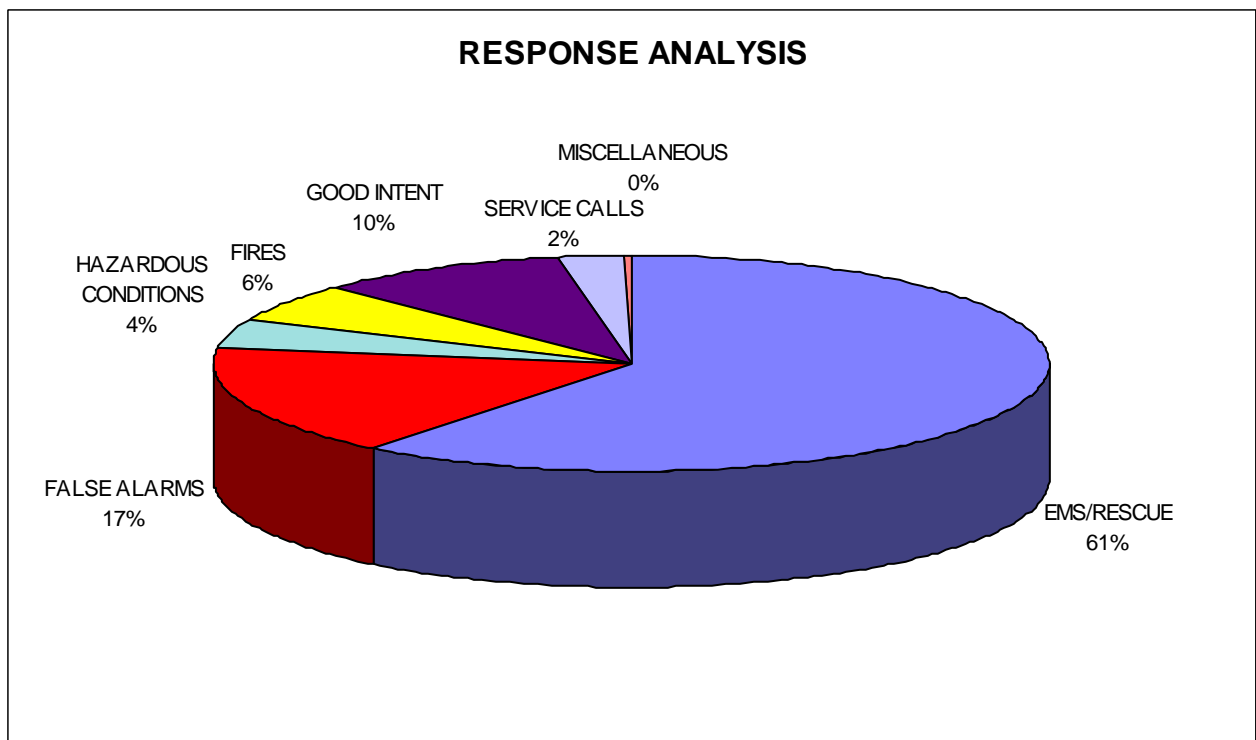
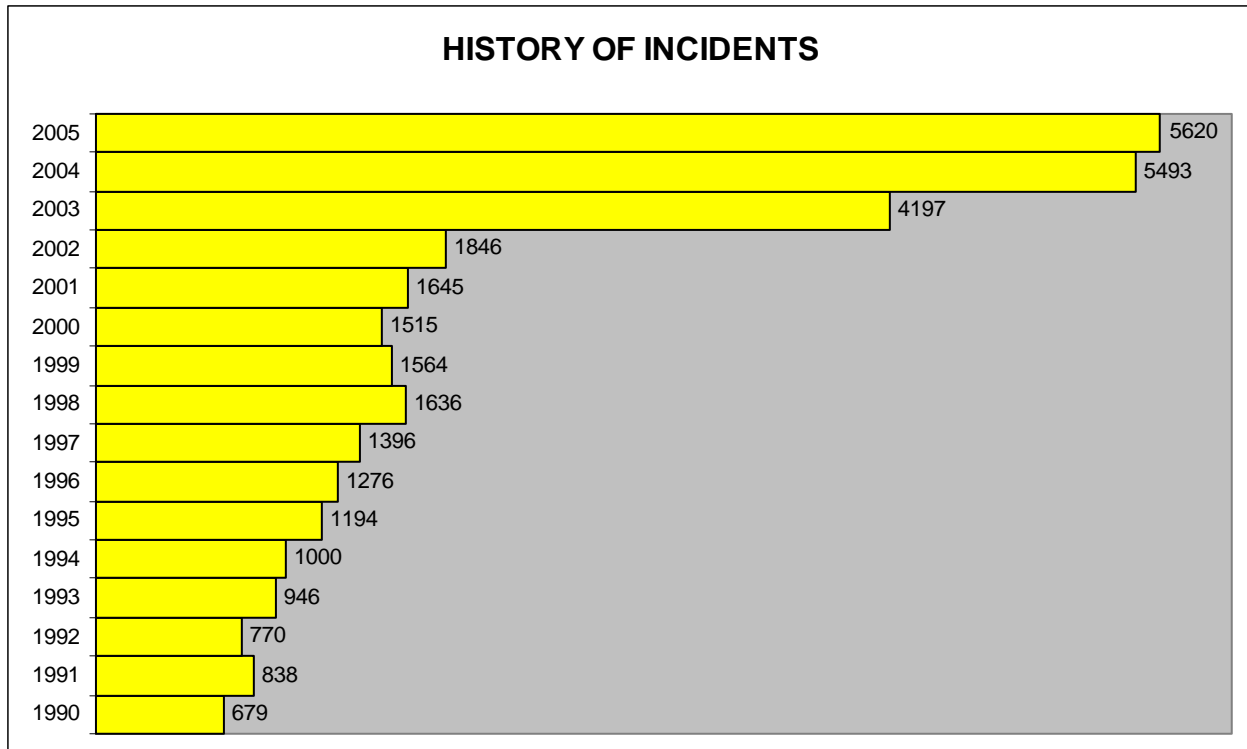
The City of Murfreesboro entered an agreement to provide full fire suppression services for the Veterans Administration Tennessee Valley Healthcare System, Alvin C. York Campus, on June 1, 2001. In accordance with this agreement, the VA pays \$30,900 monthly for fire suppression service. The Murfreesboro Fire Department also performs inspections of fire department connections and conducts hydrant flow tests.

In 2005, the Murfreesboro Fire Department responded to 5,620 calls for service including 3,401 EMS/Rescue calls. Forty-eight (48) victims were extricated from 628 vehicle accidents. Total calls increased two percent (2.31%) from 2004, and 371 percent (370.69%) since 1995. The following pages illustrate the history of incidents; response analysis; various types of fires; the number of responses by time of day, day of week, and district; and false alarm analysis.



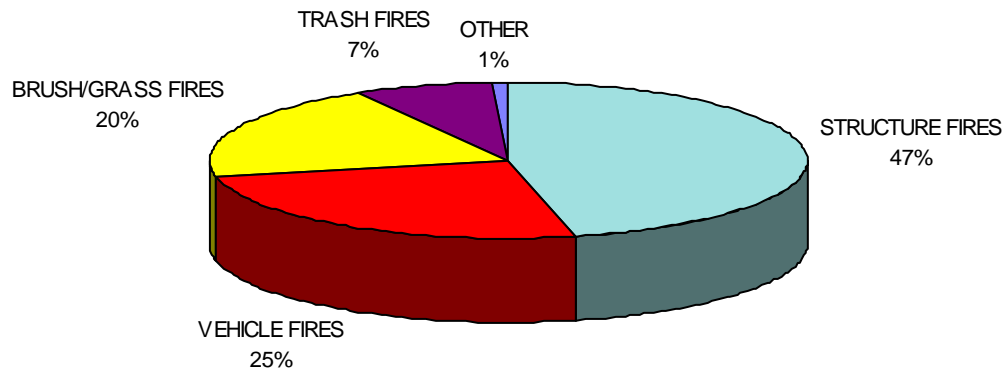
**PERSONNEL FIGHT A HOUSE  
FIRE ON CASON TRAIL**

# Incident Responses

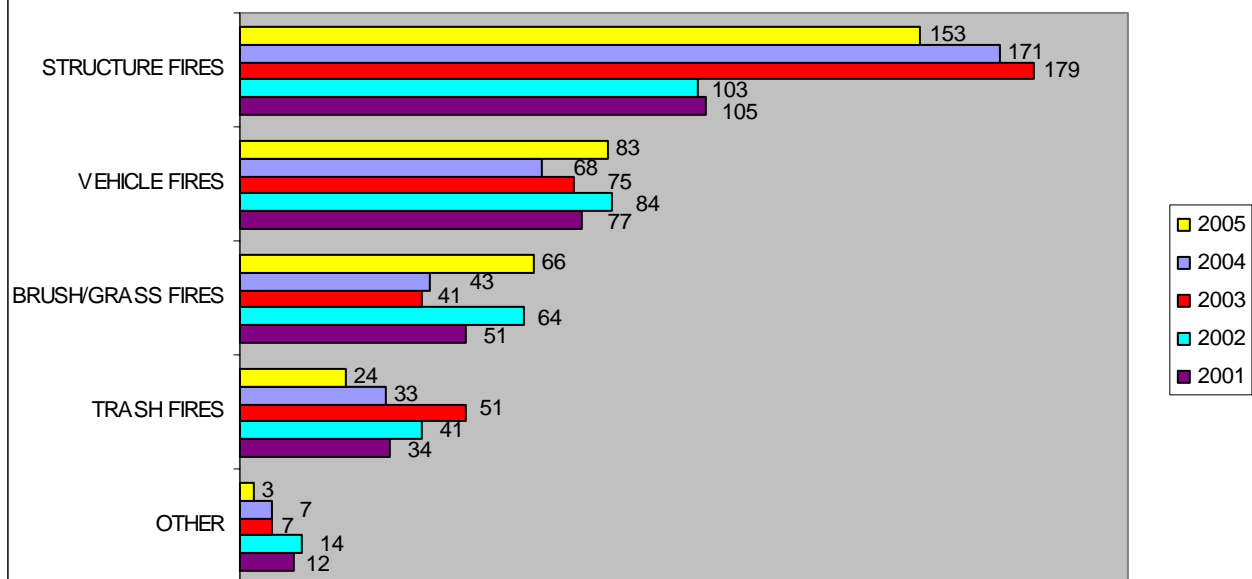


# Incident Responses

## TYPES OF FIRES

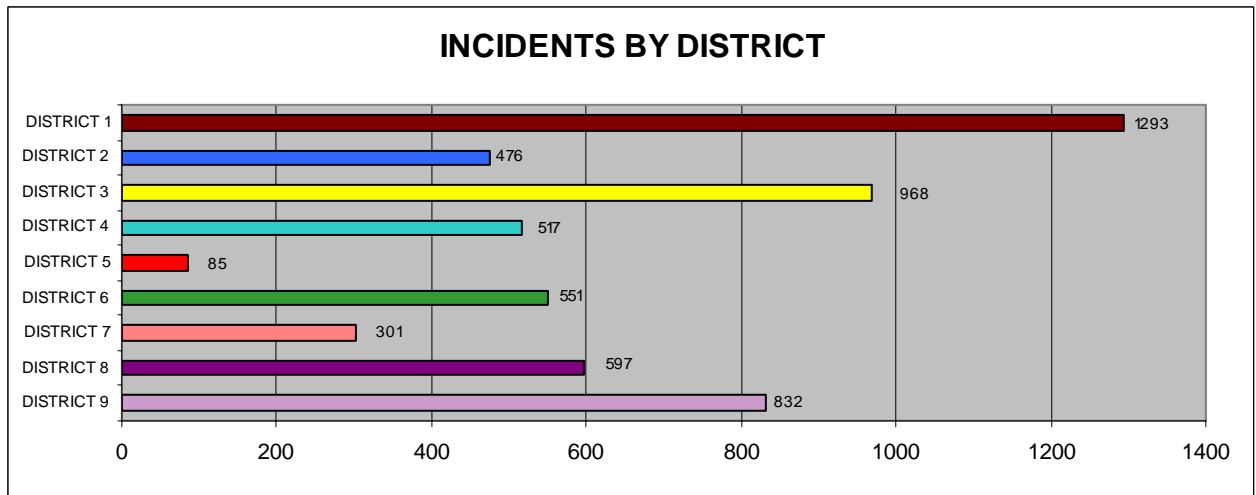
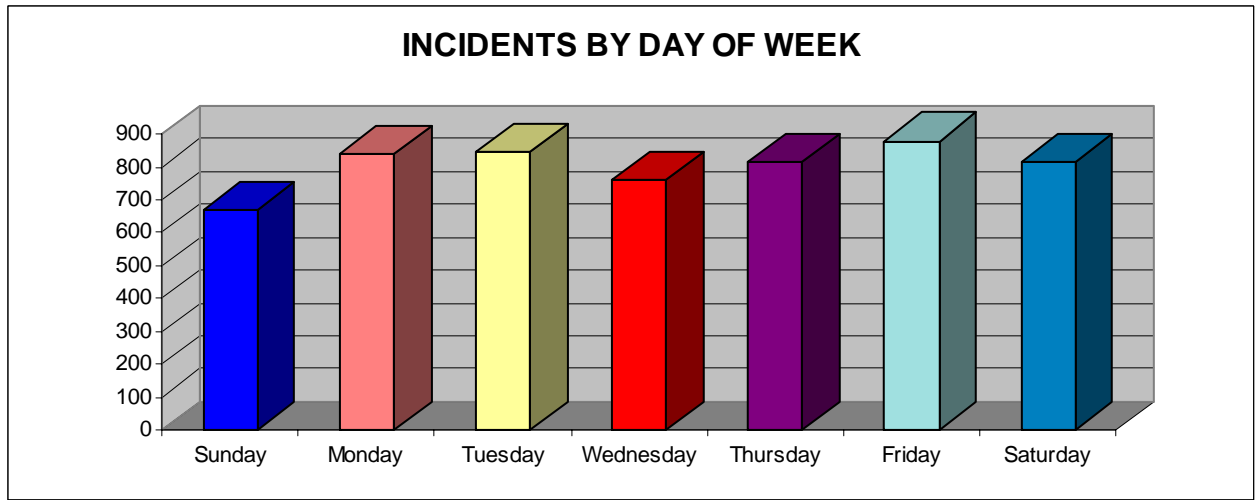
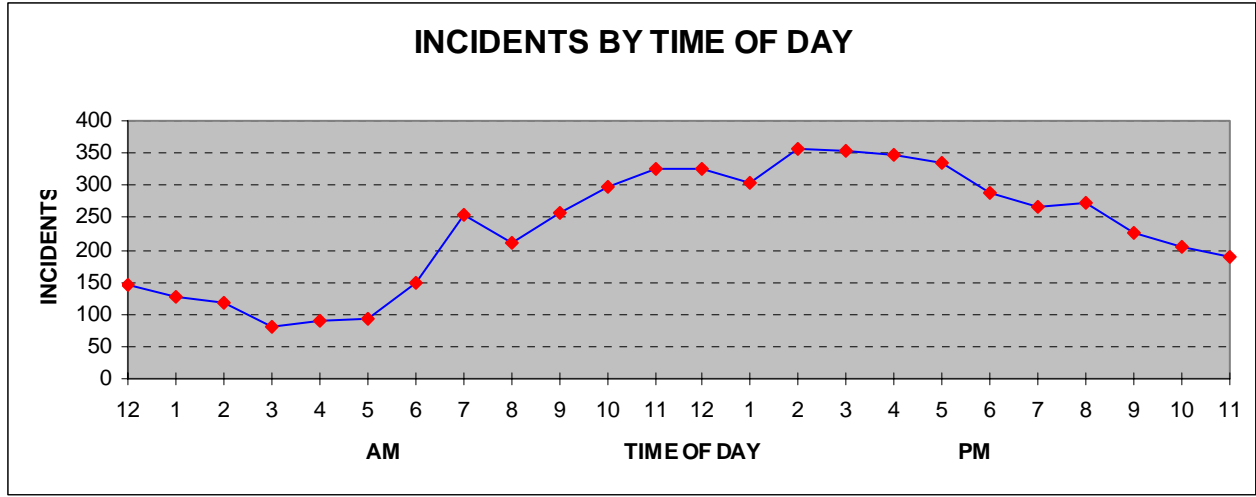


## TYPES OF FIRES BY YEAR





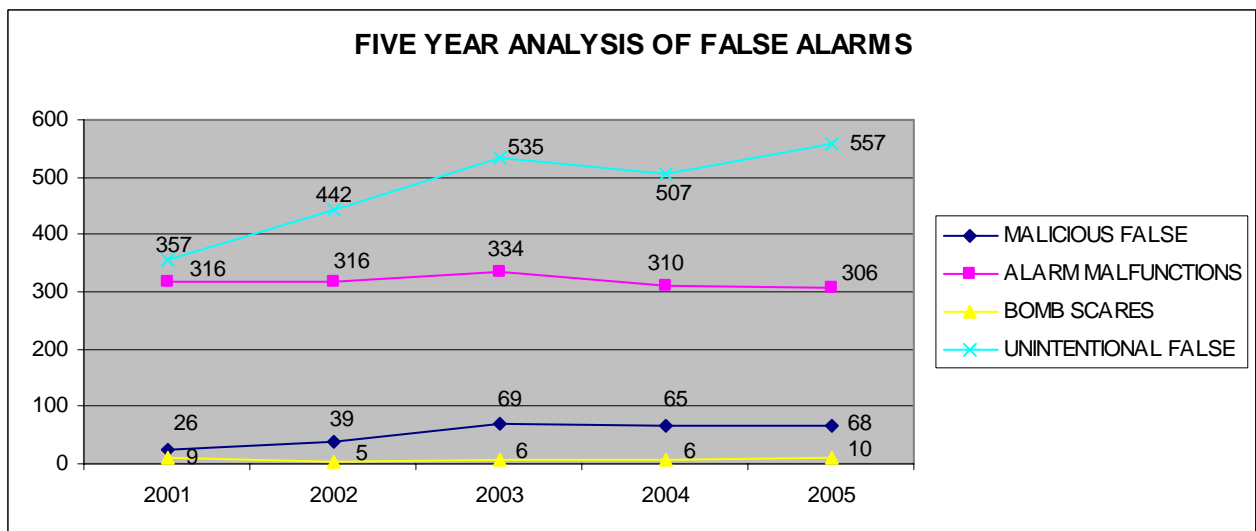
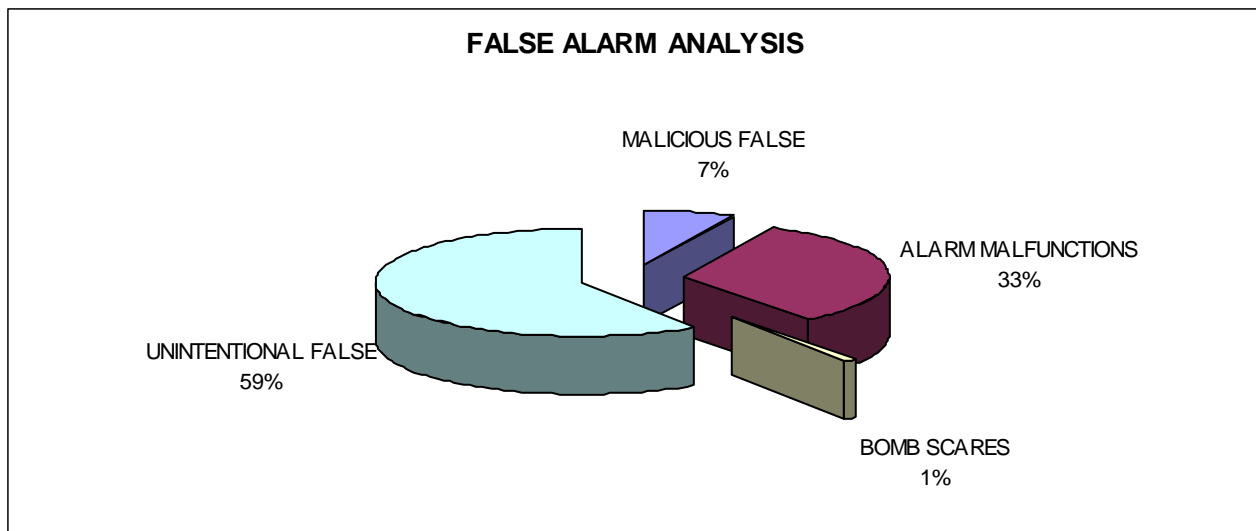
# Incident Responses



## Incident Responses

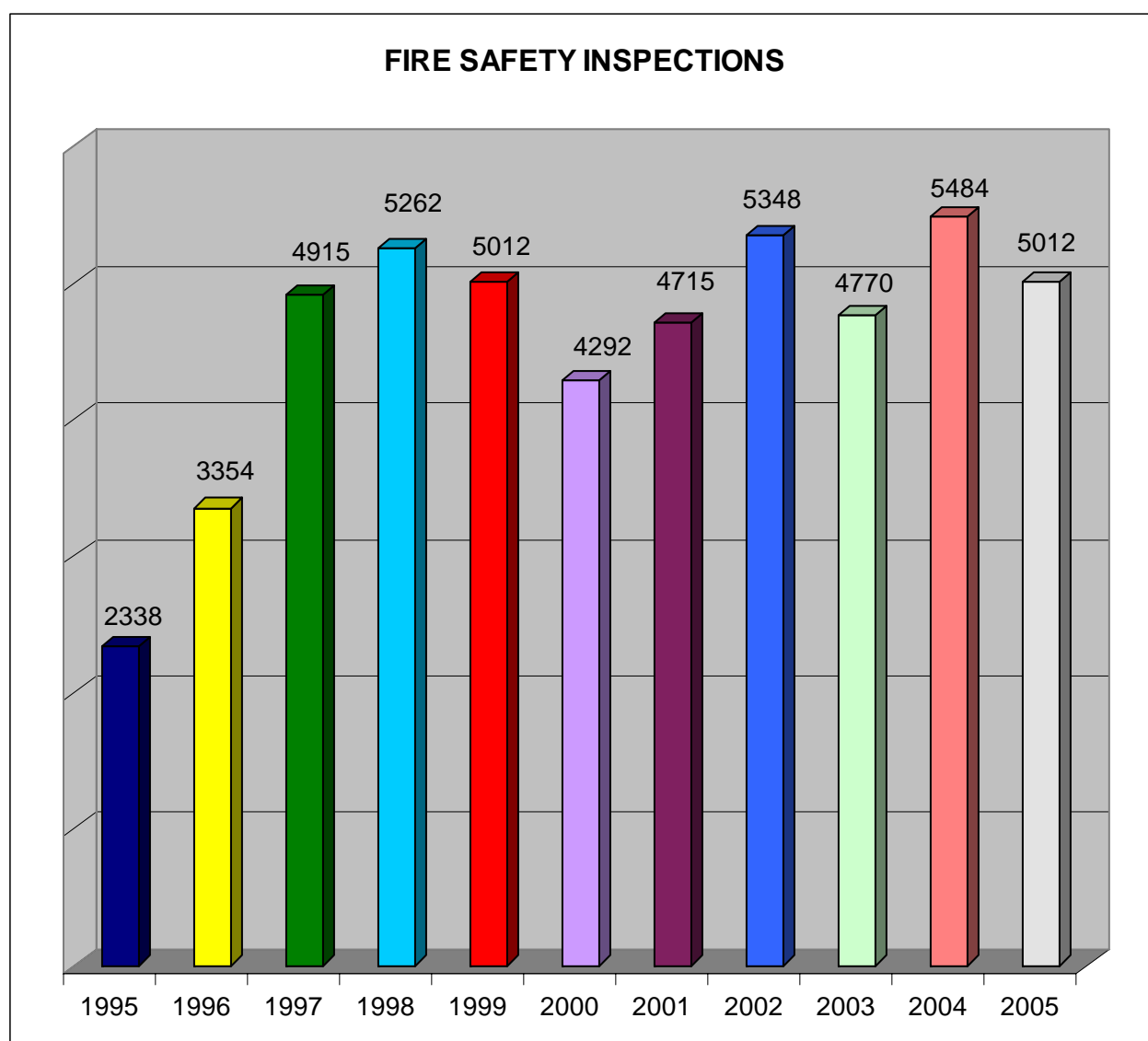
The Murfreesboro City Code dealing with alarm systems was amended in 1999. The purpose of this ordinance is to encourage alarm owners to maintain their alarm systems and to eliminate any unnecessary emergency traffic. This ordinance is also designed to encourage better maintenance and proper installation of alarms. The Murfreesboro Fire Department is making an effort to assist business owners in identifying and eliminating potential problems with their alarm systems.

The Murfreesboro Fire Department received a total of 941 false alarms in 2005. False alarms represent seventeen percent (17%) of the total calls for service. The types of false alarms are bomb scares, malicious false, alarm malfunctions, and unintentional false.



## Fire Prevention

Fire Prevention is an essential function in reducing fire losses by decreasing the incidence of uncontrolled fires. Inspections help ensure life safety conditions within a structure. During inspections, a Fire Inspector checks for potential fire hazards and advises the owner of corrections needed. These inspections provide an opportunity to educate the public. In 2005, 5,012 fire safety inspections were conducted.



## Fire Prevention

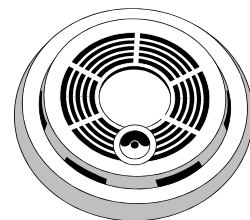
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The Fire Inspectors conduct routine fire inspections on all existing buildings. Items inspected are exit doors, proper operation of exit doors, proper number of exits, emergency lighting, hazardous materials storage, fire suppression systems, fire hydrants, and fire alarm systems. Fire Inspectors also go to construction sites to observe the installation of fire detection equipment, fire suppression systems, notification systems, fire pumps, access to the facility, proper fire hydrant location, and fire flows.

Site plans are reviewed biweekly in conjunction with the Planning and Water Departments. The Fire Marshal scrutinizes the plans for proper access to the facility, number of fire hydrants, size of water main, and any hazards existing to hinder fire suppression activities. Comments are noted on the site plan for revision before going to the Planning Commission for approval. Architectural drawings are reviewed weekly with the Plans Examiner of the Building Codes Department to ensure that the building plans meet all code requirements for a safe building.

The Murfreesboro Fire Department is responsible for monitoring and controlling open burning for the City of Murfreesboro. Assistant Fire Marshals obtain information from the individual requesting to burn and the location of the burning. The person making the request is informed of the State and EPA guidelines on open burning; the appropriate fire stations monitor their compliance. Approximately 1,163 requests were made in 2005.

The MFD Fire Prevention Division receives and distributes smoke detectors annually. Since 1990, the MFD Fire Prevention Division has given free smoke detectors to low income families, senior citizens on a fixed income, and burn out victims. In 2000, the MFD started a city-wide smoke detector placement program called Project SAFE "Smoke Alarms for Everyone." Personnel went door to door installing smoke detectors and batteries free of charge. Personnel installed 1,395 detectors and 606 batteries during 2000. In 2005, personnel continued to install smoke detectors through Project SAFE when requested. The MFD plans to revisit the idea of going door to door to further insure that the citizens of Murfreesboro have working smoke detectors.



There are several ways Inspectors learn names of individuals who need smoke detectors. During educational events, such as health fairs, career days, and safety classes, Inspectors ask individuals if they know of anyone who needs a smoke detector. Home nurses and aides also turn in names to our office. If the individual receiving the smoke detector needs assistance installing it, MFD personnel will go to the home to help.

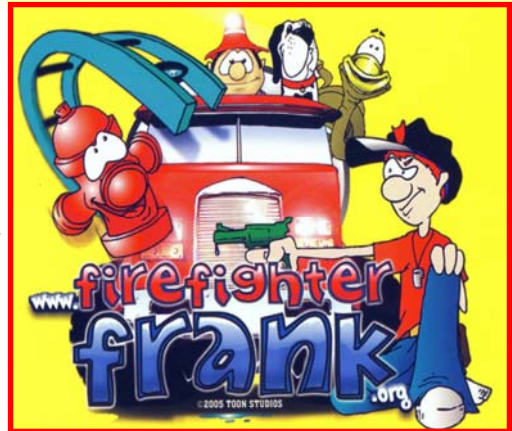
## Fire Safety Education

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Fire safety education is one of the Murfreesboro Fire Department's primary goals. Fire safety education is the key to saving lives and is taught throughout the year. Our main focus is on home fire safety because eighty percent (80%) of fire deaths occur at home. Inspectors also educate area business people on fire safety. In 2005, the Murfreesboro Fire Department educated approximately 23,384 children and adults on fire safety.

The fire safety house, acquired in July 1998, is a valuable educational tool used to teach children and adults about fire safety and burn prevention. The fire safety house is a downsized version of a two-story house with a living room, kitchen and control room on the first level and a bedroom on the second level. The fire safety house runs off a generator and is equipped with a non-toxic smoke machine, smoke detectors and red strobe lights. Children and adults are taught how to successfully exit a burning building and how to prevent fires and burns through various "hands-on" exercises. Fire escape skills are taught using non-toxic smoke, electronically operated smoke detectors and heaters located inside doors. Children learn the necessary actions to take to exit a burning building.

Fire Prevention Week was October 9 through 15, 2005. The national theme was "Use Candles with Care: When You Go Out, Blow Out." During October and November, Murfreesboro Fire Department personnel taught fire safety at each city school and county schools within the city limits by using a new educational video called "Firefighter Frank." Firefighter Frank is a hand-drawn animated cartoon told in a storybook format. It is the first safety program of its kind, designed to teach children the rules of fire prevention and emergency procedures.



Station tours are set up all during the year. During these tours, tips on fire safety are learned. Children get to closely look at fire engines, hear the sirens, watch a safety video, and much more. Children receive red plastic fire helmets and badges, as well as, fire safety pamphlets to carry home. These tours help children see firefighters as their friends. The Murfreesboro Fire Department also participated in several public relations events. These events provided opportunities to educate individuals on fire safety. Information packets and pamphlets on fire safety were given out, and personnel were available to answer questions on fire safety.

# **Citizens Fire Academies**

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## **Citizens Fire Academy (CFA)**

The Murfreesboro Fire Department held its first Citizens Fire Academy (CFA) in 2001 for citizens of the community. Sixteen (16) students graduated from the sixth session of the CFA in 2005. Since inception, seventy-one (71) students have graduated from the CFA.

The Citizens Fire Academy (CFA) offers a small group of area residents the opportunity to view and participate in the activities and services provided by the Murfreesboro Fire Department. All activities offered during the Academy are optional; students only participate in activities to which they feel comfortable. Academy participants receive an insider's view of the department's operations. The CFA helps participants better understand the department's functions, operations, and procedures. The CFA is designed to provide knowledge in fire prevention, extinguisher training, cardiopulmonary resuscitation, and a better understanding of the firefighter's role in the community. Participants complete this program being more conscious of their environment and safety oriented. Participants have the opportunity to interact with department personnel and ask questions about all aspects of the department's role in our community. Participants leave the Academy with a real respect for the fire service.

A significant portion of the Academy consists of classroom instruction and discussions along with special activities that include a ride-along in a fire engine, wearing and using a self-contained breathing apparatus, wearing turnout firefighting clothing, firefighting demonstrations and participation, climbing and riding an aerial apparatus, and other important aspects of the department. All class instructors are members of the Murfreesboro Fire Department and are committed to providing appropriate information to all participants in the Academy.

## **Youth Citizens Fire Academy (YCFA)**

The Murfreesboro Fire Department held its first Youth Citizens Fire Academy (YCFA) in June 2005 for young citizens of the community. Eleven (11) students graduated from the first session.

The Youth Citizens Fire Academy is a one week program for area youths ages fifteen to nineteen designed to enhance interest in the fire service. The YCFA offers youth the opportunity to view and participate in the activities and services provided by the Murfreesboro Fire Department. Academy Instructors teach students how to climb ladders, roll hoses, rescue victims, extricate victims from a vehicle, and perform emergency medical tactics, etc.

## Firefighter Training

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In 2005, 164 Fire Department personnel trained 62,578 hours according to individual training records. This is a monthly average of approximately thirty-two (31.8) hours per firefighter. Firefighters train a minimum of twenty (20) hours per month to help maintain the City of Murfreesboro Insurance Services Office (ISO) Class 3 Fire Rating. Firefighters receive training from MFD Instructors, the Tennessee Fire Service and Codes Enforcement Academy (TFACA), the Tennessee Emergency Management Agency (TEMA), the National Fire Academy (NFA), the Tennessee Association of Rescue Squads (TARS), and numerous schools, agencies, and workshops. In 2005, 126 personnel attended courses for a total of 8,015 hours.

OSHA regulations mandate facepiece fit tests be administered to each firefighter annually. The fit tests insure that the facepiece fits properly. The MFD uses the Qualitative Irritant Smoke Protocol to fit test each firefighter's SCBA face piece. OSHA also requires an annual respiratory evaluation on each firefighter. In 2005, a licensed Doctor administered an annual breathing test to each firefighter.

The Murfreesboro Fire Department Training Office maintains 109 self-contained breathing apparatus (SCBA) and 213 cylinders for the department. Regulations require that composite cylinders be hydrostatically pressure tested every three (3) to five (5) years. All MFD SCBA regulators are tested annually by an outside source to ensure performance. The MFD maintains three (3) breathing air compressor units that supply all SCBA breathing air for the department. The breathing air quality was tested quarterly in the air compressor units in 2005 to ensure non-toxic air is being inhaled by our firefighters while using their SCBA.

The Murfreesboro Fire Department Training Office keeps records of hazardous chemicals existing at facilities in Murfreesboro. The federal government requires businesses to annually submit a Tier II form to the Fire Department detailing any extremely hazardous materials stored at their facility. The Tier II form contains lifesaving information and is available for all personnel to study.

The MFD training office oversees the annual inventory check of all MFD fire stations, apparatus, equipment and fixed assets. In 2005, the MFD had nine (9) fire stations, one (1) administration office building, 22 fire apparatus, and 25 other vehicles. Each fire station and fire apparatus contains an array of relative equipment and when combined sums up to thousands of fixed assets and firefighting equipment.



## Firefighter Training

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The MFD follows the Tennessee Association of Rescue Squads (TARS) Vehicle Extrication teaching curriculum for Vehicle Extrication training. The vehicle extrication training course consists of three days of training including one day in the classroom and two days at an auto salvage yard. At the salvage yard, the students practice stabilizing vehicles, removing doors, windows, and tops, and pushing dashboards off of victims. A written test is administered to evaluate the students. Personnel also attend the three day TARS Advanced Extrication course. TARS requires vehicle extrication refresher training every two years. In 2005, all MFD firefighters had a TARS training certificate in vehicle extrication.

The MFD uses the United States Department of Transportation and the United States Department of Health and Human Service's First Responder: National Standard Curriculum for teaching Medical First Responder. The Medical First Responder course consists of 70 hours of cognitive and practical training. At the end of the training course, a proctor for the State of Tennessee Division of Emergency Medical Services administers a written exam. Students passing the exam receive a state issued certificate allowing them to perform the duties of a Medical First Responder. A Medical First Responder certificate is valid for two years. All MFD firefighters receive sixteen (16) hours of emergency medical refresher training every two (2) years plus six (6) hours annually.

In 2005, the MFD had 125 personnel certified in Medical First Responder, thirty-seven (37) Emergency Medical Technicians (EMT) and five (5) Paramedics. Three MFD Firefighters/Paramedics, that are certified Medical First Responder Instructors, teach the MFD Medical First Responder classes. A Paramedic/Instructor is assigned to each shift to deliver emergency medical training to MFD personnel.



**PERSONNEL PRACTICE  
VEHICLE EXTRICATION**



## Firefighter Training

The MFD has participated in the State of Tennessee's Commission on Firefighting certification program since 1986. Currently, the MFD participates in twelve (12) levels of certification. All tests consist of practical and written parts. In 2005, the MFD administered the practical part of the Fire Apparatus Operator, Instructor I, Fire Officer II, Fire Safety Compliance Officer I and II, and the Public Fire and Life Safety Educator I and II tests. The Firefighting Commission administered the practical for their Firefighter I, Journeyman Firefighter/Firefighter II, Officer I, Instructor II and Safety Officer tests. The Firefighting Commission administers all written certification tests. In 2005, the MFD had 98.84% state certified personnel.

The MFD also participates in the Commission's State Educational Incentive Program. The program requires firefighters to complete a minimum of forty (40) hours of approved training per year. All State Educational Incentive Training is administered within the MFD and is subject to state audit. In 2005, firefighting personnel received \$58,239.05 for their 2004 State Educational Incentive Training.

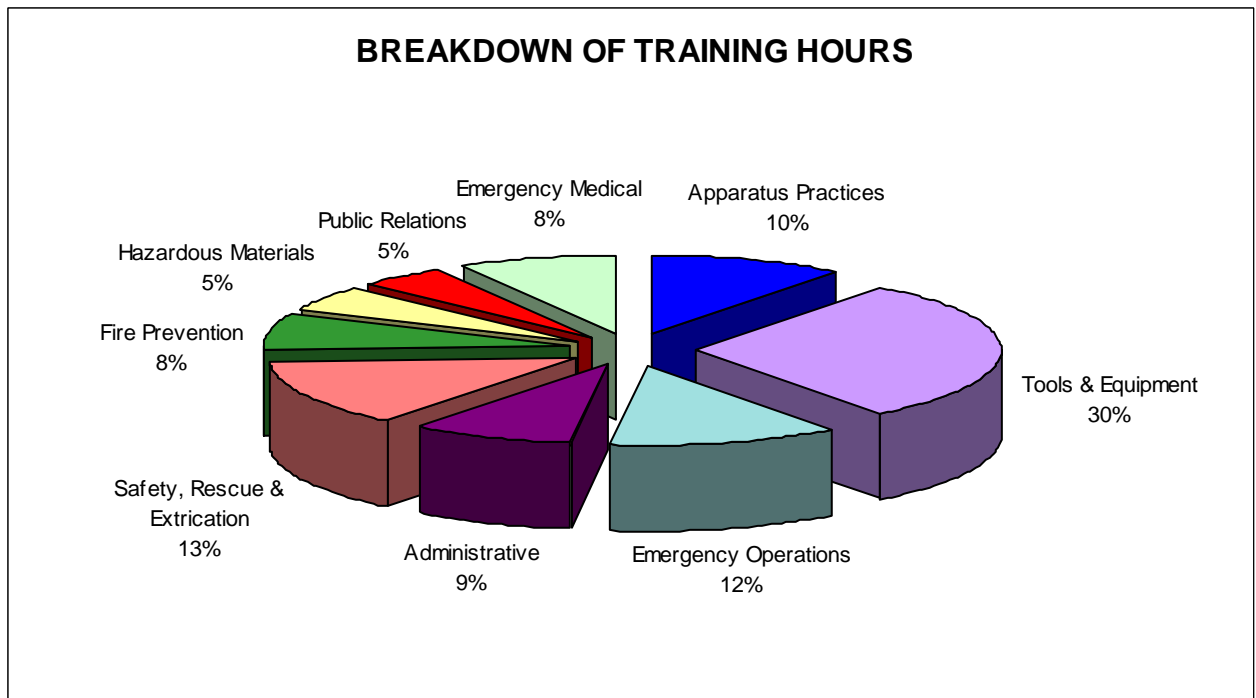
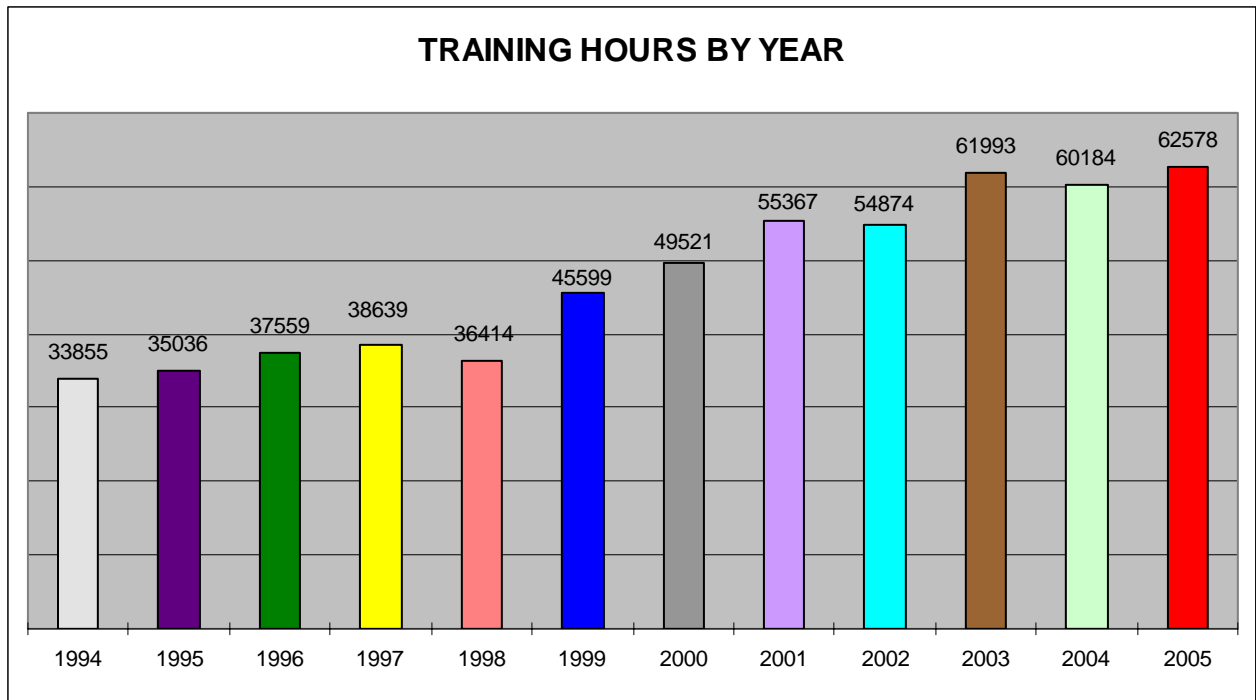
The MFD training office maintains records of fire apparatus fire pump systems annual service tests. In 2005, the service test was performed on thirteen (13) MFD fire apparatus. Most MFD fire apparatus can deliver 1500 gallons of water per minute (GPM). Each pump system is tested according to the National Fire Protection Association (NFPA) Standard #1911 that requires a 20 minute capacity (1500 GPM) test at 150 pounds per square inch (PSI) pump pressure, a 10 minute 70% capacity test at 200 PSI, and a 10 minute 50% capacity at 250 PSI. The MFD performs the fire apparatus fire pump systems tests at the Smyrna Fire Department water-drafting pit. Eight aerial ladder apparatus are certified annually to ensure safe operation.

The MFD training office oversees the annual fire hose tests. The MFD fire hose inventory consist of 1", 1.5", 1.75", 2.5", 3", and 4" fire hose. The test requires each hose be filled with pressurized water for five minutes. In 2005, MFD personnel tested 12,000' of vinyl hose and 24,950' of cotton/poly fire hose for a total of 36,950' or nearly seven (7) miles of fire hose.

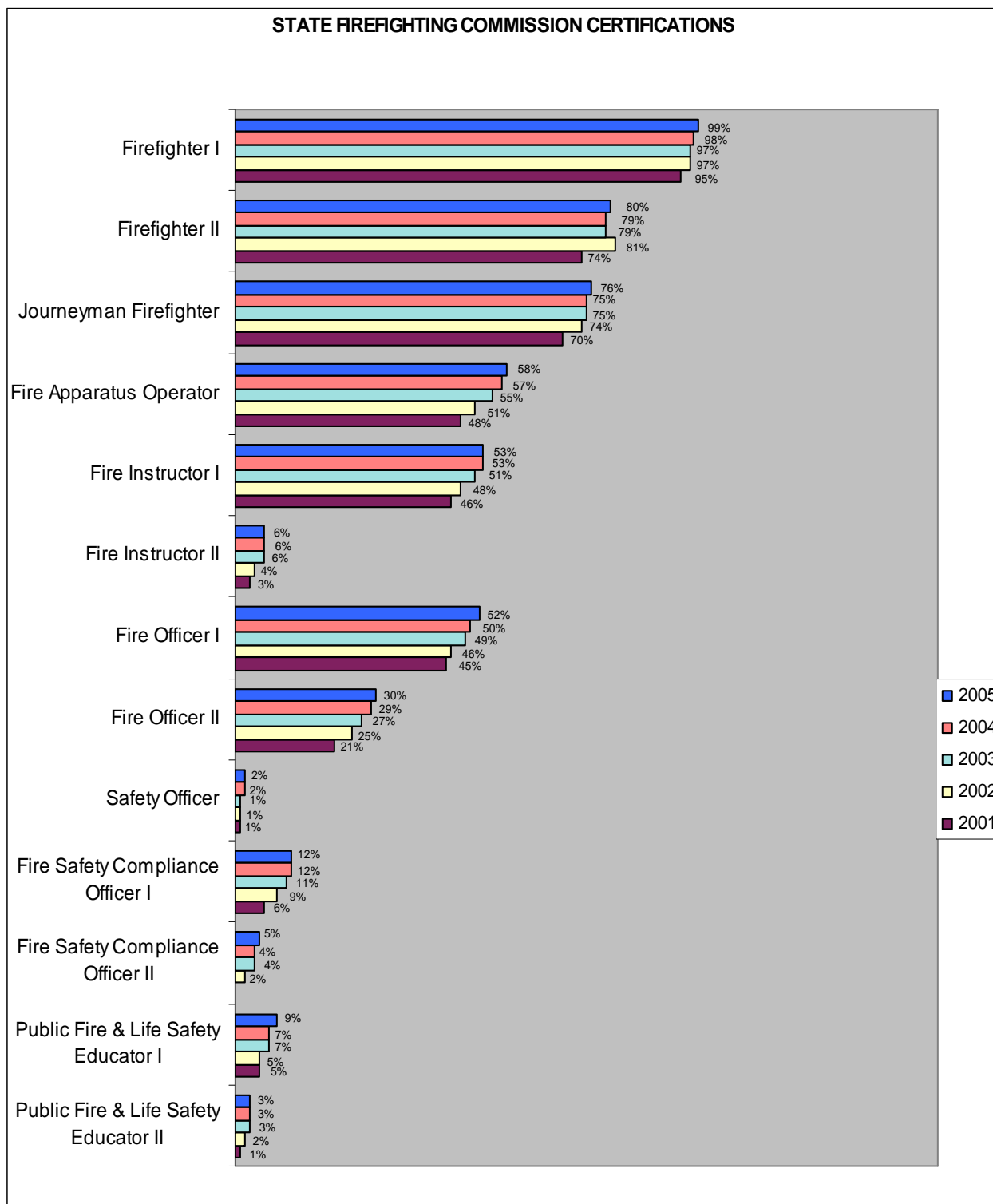


**PERSONNEL PERFORM ANNUAL  
PUMP TESTS**

# Firefighter Training



# Firefighter Training



\*The Safety Officer test has only been offered since approximately 1998; the Fire Safety Compliance Officer and Fire Instructor II has been offered since 1999; the Public Fire & Life Safety Educator I since 2000; the Public Fire & Life Safety Educator II since 2001; and the Fire Safety Compliance Officer II since 2002.